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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, THANH Y

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 02/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,151

Applicant(s)

ERIK PAULSEN

Examiner

Thanh Y. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1-4 and 6-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Tosaki et al. (U.S. 6,272,020).

As to claim 1, Tosaki et al. discloses a converter device (see Fig. 2) comprising a board (3) having a first side and a second side, wherein the first side includes a first set of contacts (see “contacts” as labeled in figure 2) suitable for electrically contacting an integrated circuit (2) having a first configuration; and the second side includes a second set of contacts (7A) suitable for electrically contacting a circuit board (6) having a second configuration, wherein the second set of contacts (7A) are communicatively coupled to the first set of contacts (see “contacts” as labeled in figure 2); wherein contacts of the integrated circuit (2) having a function configured in the first configuration are not arranged with contacts (7A) of the circuit board (6) having a corresponding function configured in the second configuration (see Fig. 2), and wherein the set of contacts (see “contacts” as labeled in figure 2) of the first configuration and the second configuration (see elements 7A) have a *substantially* similar size.

As to claim 2, Tosaki et al. discloses a converter device (see Fig. 2) wherein a device (2) having the first configuration is unsuitable for direct contact and operation with a device (6) having the second configuration.

As to claim 3, Tosaki et al. discloses a converter device (see Fig. 2) comprising an integrated circuit (2) having a set of contacts (see “contacts” as labeled in figure 2) arranged in the first configuration. Figure 2 shows a circuit board (6) having a set of contacts (7A) arranged in the second configuration.

As to claim 4, Tosaki et al. discloses a converter device (see Fig. 2) wherein the integrated circuit set of contacts (see “contacts” as labeled in figure 2) includes at least one contact having a function corresponding to a function of a contact (7A) of the circuit board (6), the integrated circuit contact positioned so that when the integrated circuit (2) is arranged with the circuit board (6), the integrated circuit contact is not positioned for electrical coupling to the contact of the circuit board (6) having a corresponding function (see Fig. 2).

As to claim 6, Tosaki et al. discloses a converter device (see Fig. 2) wherein the first set of contacts (see “contacts” as labeled in figure 2) is electrically connected over an electrical connection [see the connection line between the first set of contacts (as labeled in figure 2) and the second set of contacts (7A)] to the second set of contacts (7A).

Claim 7 recites limitations similar to claim 1. Tosaki et al. further discloses an apparatus (Fig. 2) comprising an integrated circuit (2) including a set of contacts (see “contacts” as labeled), wherein the integrated circuit set of contacts is suitable for operation in a first configuration, the first configuration having an arrangement of contacts (see labeled “contacts”) and corresponding functions of arranged integrated circuit contacts; a circuit board (6) including

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a set of contacts (7A), wherein the circuit board set of contacts (7A) is suitable for operation in a second configuration, the second configuration having an arrangement of contacts (7A) and corresponding functions of arranged circuit board contacts; wherein the contacts (7A) of the second configuration are situated to correspond to the contacts (as labeled in figure 2) of the first configuration of the integrated circuit (2), and arrangement of functions of the contacts (7A) of the second configuration does not correspond to arrangement of functions of the contacts of the first configuration; and a converter device (3) disposed between the integrated circuit (2) and the circuit board (6). Thus claim 7 is rejected for the same reasons.

Claim 8 recites limitations similar to claim 1. Therefore, it is rejected for the same reasons.

Claim 9 recites limitations similar to claim 2. Therefore, it is rejected for the same reasons.

As to claim 10, Tosaki et al. discloses an apparatus (see Fig. 2) wherein the first set of contacts (as labeled in figure 2) is disposed to the second set of contacts (7A) as at least one of opposing sides of the converter device (3) and sharing a side of the converter device (3).

Claim 11 recites limitations similar to claim 4. Therefore, it is rejected for the same reasons.

As to claim 12, figure 2 shows the converter device includes a first converter board (3) and a second converter board (6). It should be noted that board (6) is also considered as a second converter board because board (6) has a second set of contacts (8A) which is inherently connected to another printed circuit board.

As to claim 13, figure 2 shows the first converter board (3) includes the first set of contacts (as labeled) and the second converter board (6) includes the second set of contacts (8A), the first set of contacts (as labeled) being communicatively coupled to the second set of contacts (8A) utilizing an intermediate set of contacts (7A).

Claim 14 recites limitations similar to claim 7. Therefore, it is rejected for the same reasons.

As to claim 15, figure 2 shows an integrated circuit (2) configured for contacting the first set of contacts (as labeled in figure 2) of the converter device (3) includes at least one contact positioned so as to be unsuitable for direct contact and operation with the circuit board (6).

Claim 16 recites limitations similar to claim 2. Therefore, it is rejected for the same reasons.

Claim 17 recites limitations similar to claim 10. Therefore, it is rejected for the same reasons.

Claim 18 recites limitations similar to claim 1. Therefore, it is rejected for the same reasons.

Claim 19 recites limitations similar to claim 12. Therefore, it is rejected for the same reasons.

Claim 20 recites limitations similar to claim 13. Therefore, it is rejected for the same reasons.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim is rejected under 35 U.S.C. 103(a) as being unpatentable over Tosaki et al. (U.S. 6,272,020) in view of Hussain et al. (U.S. 6,344,684).

As to claim 5, Tosaki et al. does not teach the converter device comprising a power layer and a ground layer. However, Hussain et al. teaches a converter device (see Fig. 2, element 16) comprising a power layer and a ground layer (see Fig. 5, col. 4, lines 8-36). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement the converter device of Tosaki et al. by including a power layer and a ground layer as taught by Hussain et al. for the purpose of reducing crosstalk between the different layers, minimizing noise and preventing voltage drops between the layers (see prior art of Hussain et al, col. 4, lines 23-35).

Response to Arguments

Applicant's arguments filed on 11/29/02 have been fully considered but they are not persuasive.

With respect to claims 1, 7 and 14, Applicant argues that there is no teaching or suggestion in the Tosaki reference for changing the arrangement of the connections in a configuration while maintaining size of the contact area. The Examiner disagrees, because pin 8

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of chip (2) (as shown in figure 2 of Tosaki) is connected to pin (5) of the substrate (6). This is a changing of the arrangement of the connections. Therefore, the claimed limitations are read on the reference of Tosaki. It should be noted that: there is no recitation of the exact dimensional relationship between the set contacts of the first and second configurations. Thus, it would be impossible to determine the meaning of "a substantially similar size" as claimed in claim 1, line 13.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Y. Tran whose telephone number is (703) 305-4757. The examiner can normally be reached on Monday through Thursday and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (703) 308-3121. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TYT

A handwritten signature in black ink, appearing to read 'DL' followed by a stylized flourish.

**DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800**